

Title Page

Applying and Optimizing Water-Soluble, Slow-Release Nitrogen Fertilizers for Water-Saving Agriculture

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Table S1. The single-factor test design

Run	U:F ^a (molar ratio)	F:NH ₃ ^b (molar ratio)	Reaction temperature (°C)	Reaction time (h)
1	1.75	1.90	60	2.5
2	1.50	2.22	60	2.5
3	1.25	2.67	60	2.5
4	1.00	3.33	60	2.5
5	0.75	4.44	60	2.5
6	1.25	4.00	60	2.5
7	1.25	3.33	60	2.5
8	1.25	2.67	60	2.5
9	1.25	2.00	60	2.5
10	1.25	1.00	60	2.5
11	1.25	2.67	20	2.5
12	1.25	2.67	40	2.5
13	1.25	2.67	60	2.5
14	1.25	2.67	80	2.5
15	1.25	2.67	100	2.5
16	1.25	2.67	60	0.5
17	1.25	2.67	60	1.5
18	1.25	2.67	60	2.5
19	1.25	2.67	60	3.5
20	1.25	2.67	60	4.5

^a Urea:formaldehyde ratio.

^b Formaldehyde:amine ratio.



Figure S1. Samples of single-factor experiments



Figure S2. Samples of response surface methodology design